.3125 W.058

Work Order ID 87713 *87713* Page 1

July-27-12 9:07:17 AM

Item ID: D3275-1 **Accept** *N900040100* **Setup** **Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Crossbolt Spacer

Start Date: 7/27/12 **Start Qty:** 160.00 *160* **Cust Item ID:**

Required Date: 8/17/12 **Req'd Qty:** 160.00 *160* **Customer:**

Reference:

Run **Start** *NR1* **Stop** *NR2*

Approvals: **Process Plan:** MLJ **Date:** 12/07/27 **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D3275	Rev A1

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Signature/Date	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100 *100* Hardinge Hardinge CNC Lathe Small	Hardinge CNC LATHE SMALL **Memo** 1-Turn as per Folio FA469 and Dwg D3275	0.00 0.00	SD/SS 12/09/04	161	Ø		
110 *110* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB **Memo**	0.00 0.00	SD/SS 12/09/04	161	Ø		
120 *120* QC Quality Control	QC8- Inspect parts - second check **Memo**	0.00 0.00	[illegible] R·9·4	161	[illegible]		

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ____________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ____________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped.	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	____________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	____________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 87713

July-27-12 9:07:17 AM

87713

Item ID:	D3275-1	**Accept**	*N900040100*	**Setup** Start	*NS1*
Revision ID:				Stop	*NS2*
Item Name:	Crossbolt Spacer				
Start Date:	7/27/12	**Start Qty:** 160.00	*160*	**Cust Item ID:**	
Required Date:	8/17/12	**Req'd Qty:** 160.00	*160*	**Customer:**	
Reference:					

Approvals: **Process Plan:** ________ **Date:** ________ **Tooling:** ________ **Date:** ________

QC: ________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________

Run Start *NR1* Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging	Identify as per dwg & Stock Location: LG	0.00				161	ø	BE 12/09/04	
Packaging	**Memo** ***STOCK IN SKIDTUBE CELL***	0.00							
140 *140* QC	QC21- Final Inspection - Work Order Release	0.00					12/9/5		
Quality Control	**Memo**	0.00							

MF 12-09-04

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________________

Part No. ____________________

NCR No. ____________________

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other ____________________

____

____

____

Picklist Print

July-27-12 9:07:17 AM

Work Order ID: 87713
Parent Item: D3275-1
Parent Item Name: Crossbolt Spacer
Start Date: 7/27/12
Start Qty: 160.00
Required Date: 8/17/12
Required Qty: 160.00

Comments: IPP Rev:A04.10.19New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6T0.3125W.058 ALUM TUBE .3125 x .058w		Purchased	No			100	f	132.3910	0.2666 45.000'	**44.901056**	JJ	12/08/04	

Location	Loc Qty	Loc Code
MAT013	132.391	
119678	1.311	
121910	131.08	

45'

12J8/30

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______ Part No. ______ NCR No. ______	**DISPOSITION** Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	**AGAINST DEPARTMENT/PROCESS** Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
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☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other ______
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	______	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	______	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	______	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

DART AEROSPACE LTD	Work Order:	87713
Description: Crossbolt Spacer	Part Number:	D3275-1
Inspection Dwg: D3275 Rev: A1		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.180	+/-0.010	3.182	✓			
0.025 – 0.030	N/A	.025	✓			
45°	+/-0.01°	45°	✓			
Ø0.313	+0.010/-0.005	.311	✓			
0.058	Max = 0.0605 Min = 0.0555	.058	✓			

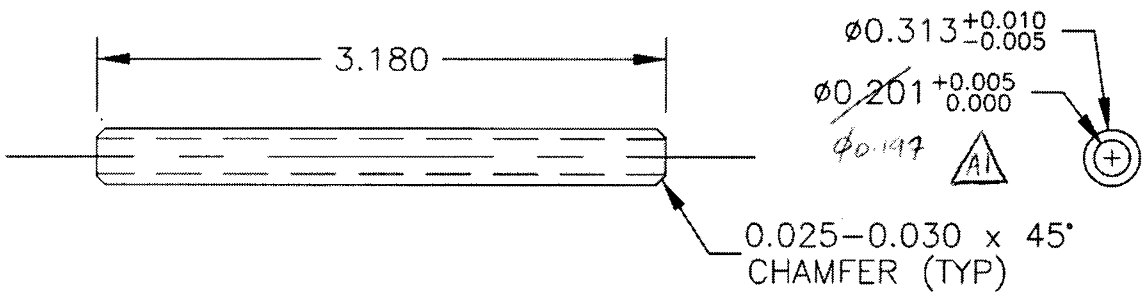
Measured by:	[signature]	Audited by:	[signature]	Prototype Approval:	N/A
Date:	12/8/30	Date:	12.9.4	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.10.19	New Issue	KJ/JLM	
B	06.03.09	Dimension Ø0.197 was Ø0.201	KJ/JLM	
c	09.05.04	Ø0.197 dimension removed	KJ/DD [initials]	[initials]

DESIGN	DRAWN BY	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CHECKED	APPROVED	DRAWING NO. D3275 — REV. A — SHEET 1 OF 1
DATE 04.03.10		TITLE CROSS BOLT SPACER — SCALE 1:1

A		04.03.10	NEW ISSUE
A1		04.10.19	CHANGE MAT'L SPEC

RELEASED 04.06.22



D3275−1 CROSS BOLT SPACER

1) MATERIAL: 6061−T6 (QQ−A−200/8 OR QQ−A−225/8)
(REF DART SPEC. ~~M6061T6R~~) M6061T6T0.313W.058 A1
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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WORK ORDER
NO. 83713 MLJ
12/07/23